

ABSTRACT**DUAL FUNCTION ARRAY FEATURE FOR CMP PROCESS CONTROL AND
INSPECTION**

CMP process control array groups are fabricated upon the surface of the wafer for
5 viewing through an optical microscope. The array groups include a plurality of test
arrays, where each array includes a plurality of projecting test features. Each of the
projecting test features are formed with the same projecting height and have a hard upper
surface layer, such as diamond-like-carbon (DLC). All of the projecting test features
within an array are formed with the same diameter, and the diameter of projecting test
10 features of a particular array differs from the diameter of projecting test features in
another array. The diameters are chosen such that the DLC surface is removed in
specifically designed time increments, such as 5 seconds, from array to array, where
projecting test features with the DLC surface removed appear as bright white, while the
arrays with test features that retain some DLC surface are significantly darker.